DERWENT-ACC-NO: 1997-433772
DERWENT-WEEK: 199740

TITLE: Manufacture of electric heater - comprises stacking layers of conducting and insulating materials of specified compositions, fixing and applying insulating layer with binder

INVENTOR: CHEVORDAEV, V M

PATENT-ASSIGNEE: CHEVORDAEV V M [CHEVI]

PRIORITY-DATA: 1994RU-0027440 (July 19, 1994)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RU 2074521 C1	February 27, 1997	N/A	006	H05B 003/28

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
RU 2074521C1	N/A	1994RU-0027440	July 19, 1994

INT-CL_(IPC): H05B003/28
ABSTRACTED-PUB-NO: RU 2074521C

BASIC-ABSTRACT:
An electric heater comprises: (i) a layer of insulating material made of fibreglass fabric 100-300 parts by weight (pts.wt.), 100 pts.wt. of liquid glass with hardening agent, 3.5-10.0 pts.wt. of zinc oxide and a filter, i.e. aluminium oxide 50-150 pts.wt.; and (ii) conducting materials made of copper threads or a conducting composite consisting of 100 pts.wt. of liquid glass, 3.5-10.0 pts.wt. of hardening agent and 50-150 pts.wt. of filler, 5-20 pts.wt. graphite and 0.1-5.0 pts.wt. carbon fibre, enclosed by the insulating materials. The components are added in turn to the liquid glass and are mixed for 3-20 minutes depending on the amount, the hardening agents are added directly after use and are mixed for 3-5 minutes, while the binder is applied onto the fibreglass fabric by a spatula to a thickness of 0.1-0.5 mm. The heating element in the form of a paste is manufactured using the same technology and is applied onto 1 of the layers of fibreglass fabric in the centre of the heating plate. 3-5 layers of fibreglass fabric are used. If copper threads are used they are applied depending on the power and dimensions of the heater.

Manufacture of electric heater

Forming of non-fuel, decorative, non-toxic heater

CHOSEN-DRAWING: Dwg.1/2

DERWENT-CLASS: L03 X25

CPI-CODES: L03-A; L03-A01B; L03-H04A;

EPI-CODES: X25-B01C;

DERWENT-ACC-NO: 1997-311643
DERWENT-WEEK: 199729

TITLE: Two-layer **friction** bearing material - has base layer, e.g. of metal, and **friction** layer consisting of polyamide matrix with 3-40 volume% PTFE

INVENTOR: DEINERT, J

PATENT-ASSIGNEE: GLYCO-METALL-WERKE GLYCO & CO BV [GLYC]

PRIORITY-DATA: 1995DE-1045425 (December 6, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19545425 A1	June 12, 1997	N/A	006	F16C 033/20

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
DE19545425A1	N/A	1995DE-1045425	December 6, 1995

INT-CL (IPC): F16C033/20
ABSTRACTED-PUB-NO: DE19545425A

BASIC-ABSTRACT:
A two-layer **friction** bearing material (I) comprises (A) a plastic **friction** layer (1) with a polyamide matrix containing 3-40 vol.% PTFE; and (B) a base material.

Also claimed are processes for the production of (I).

Preferably layer (1) consists of a polyamide (PA) 11 or 12 matrix with 10-20 vol.% PTFE and no lead, optionally modified with additives such as calcium carbonate, mica, polyethylene, wax, mineral oil, synthetic oil, calcium fluoride, molybdenum sulphide, graphite, bronze powder and/or **fibres**, preferably with a total additive concentratio n of 2-40 wt%. Base (B) (material 2) consists of (B1) metal, preferably sub-eutectoid steel such as DIN 1624 steel, Grade St3 or St4, with a 10-25 mu protective layer (3) of PA 11 or PA 12 on the side opposite layer (1), or (B2) bronze, brass, aluminium or a not very reactive **copper** alloy, or (B3) a **woven** fabric (5), preferably made of **carbon**, glass, **aramid** or metal **fibres**.

USE - For the production of flange sleeves (claimed).

ADVANTAGE - A low-cost, temperature- and corrosion-resistant bearing material with better dry-running properties than prior-art materials, especially 3-layer composites. The high concentration of PTFE makes it possible to avoid the use of lead.

CHOSEN-DRAWING: Dwg.1/4

DERWENT-CLASS: A14 A23 A88 Q62

CPI-CODES: A04-E08B; A05-F01E2; A07-A04E; A09-A05; A12-H10;

L Number	Hits	Search Text	DB	Time stamp
-	3	"6001440"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:16
-	1399	(gradient gradual$4) near8 heat near8 conduct$7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:08
-	8	gradient near8 concentration near8 heat near8 conduct$7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:07
-	1	"4784893" and gradient	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/23 19:32
-	2036	gradient near8 (thermal$4 heat) near8 conduct$7	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:43
-	209	(gradient near8 (thermal$4 heat) near8 conduct$7) and friction$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:36
-	3	("4700823" "1844218" "5858511").pn.	USPAT; US-PGPUB	2002/01/24 09:37
-	17	(gradient near8 (thermal$4 heat) near8 conduct$7) same friction$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:34
-	78	(gradient near8 (thermal$4 heat) near8 conduct$7) near8 (concentration density)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:39
-	10	((gradient near8 (thermal$4 heat) near8 conduct$7) near8 (concentration density)) and friction$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:37
-	3	("4700823" "4844218" "5858511").pn.	USPAT; US-PGPUB	2002/01/24 09:37
-	19	(gradient near8 (thermal$4 heat) near8 conduct$7) near8 concentration	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:39
-	19	gradient near8 (thermal$4 heat) near8 (conduct$7 disspat$5) near8 concentration	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:46

-	0	(gradient near8 (thermal$4 heat) near8 (conduct$7 disspat$5) near8 concentration) not ((gradient near8 (thermal$4 heat) near8 conduct$7) near8 concentration)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/24 09:46
-	4	"1374710"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 11:59
-	0	(gradient gradually varying) near8 concentration near8 heat near8 conduct$7 near8 fib$1r$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:11
-	3	((gradient gradually varying) near8 concentration) same (heat near4 conduct$7 near4 (fib$1r$4 element))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:15
-	26	((gradient gradually gradation varying) near8 concentration) and (friction near6 (material lining)) and (heat near4 conduct$7)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:25
-	11	((gradient gradually gradation varying) near8 concentration) and (friction near8 heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:28
-	67	((gradient gradually gradation varying) near8 (ratio rate density concentration)) and (friction near8 heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:55
-	0	"4784893" and friction$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:47
-	24400	(friction near4 (lining material)).ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:49
-	268	(friction near4 (lining material)) and (fib$1r$6 same conduct$6 same heat)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:54
-	77	(friction near4 (lining material)) same (fib$1r$6 same conduct$6 same heat)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 12:56
-	4577	((gradient gradually gradation varying direction orient$7) near8 (fiber fibre)) and (heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 13:05

-	782	((gradient gradually gradation varying direction orient$7) near8 (fiber fibre)) same (heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 13:05
-	66	(gradient gradually gradation varying) same (direction orient$7) same (fiber fibre) same (heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 14:33
-	114	(gradient gradually gradation varying) same (concentration amount density) same (fiber fibre) same (heat near8 (transfer$5 conduct$7))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 16:01
-	1	1993-269706.NRAN.	DERWENT	2002/05/22 14:45
-	13197	(fiber fibre) same (heat near8 (transfer$5 conduct$7 dissipat$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 15:57
-	25	((fiber fibre) same (heat near8 (transfer$5 conduct$7 dissipat$5))) same (hot near3 side)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 15:58
-	4	(hot near2 side) same (concentration amount density) same (fiber fibre) same (heat near8 (transfer$5 conduct$7 dissipat$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 16:09
-	26	"5288537"	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 16:10
-	482	(428/120,64.1 192/12r 188/251r).ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 16:56
-	53	((428/120,64.1 192/12r 188/251r).ccls.) and ((heat thermal$5) near6 (conduct$9 transfer$5 dissipat$9))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/22 17:01
-	6	(copper near3 thread) same (carbon near3 (fiber fibre))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:23
-	320	copper same (woven weaving weave) same (carbon near3 (fiber fibre))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:24
-	159	copper with (woven weaving weave) with (carbon near3 (fiber fibre))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:25

-	0	copper adj thread with (woven weaving weave) with (carbon near3 (fiber fibre))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:26
-	1	copper adj thread same (woven weaving weave) same (carbon near3 (fiber fibre))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:40
-	662	(woven weaving weave) and aramid$4 and carbon and (fiber fibre) and (clutch$5 brake friction$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:54
-	184	((woven weaving weave) and aramid$4 and carbon and (fiber fibre) and (clutch$5 brake friction$5)) and copper	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:44
-	164	(((woven weaving weave) and aramid$4 and carbon and (fiber fibre) and (clutch$5 brake friction$5)) and copper) and heat	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:49
-	72	(((woven weaving weave) and aramid$4 and carbon and (fiber fibre) and (clutch$5 brake friction$5)) and copper) and ((thermal heat) near6 (conductiv$8 transfer$8))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:51
-	126	((woven weaving weave) same aramid$4 same carbon same (fiber fibre)) and (clutch$5 brake friction$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 16:03
-	6	((woven weaving weave) same aramid$4 same carbon same (fiber fibre) same copper) and (clutch$5 brake friction$5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 15:57
-	1	1997-311643.NRAN.	DERWENT	2002/05/24 16:01
-	41	(((woven weaving weave) same aramid$4 same carbon same (fiber fibre)) and (clutch$5 brake friction$5)) and copper	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 16:06
-	35	((((woven weaving weave) same aramid$4 same carbon same (fiber fibre)) and (clutch$5 brake friction$5)) and copper) not (((woven weaving weave) same aramid$4 same carbon same (fiber fibre) same copper) and (clutch$5 brake friction$5))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/24 16:06